

Table 4-17. Radiological doses associated with the No-Action Alternative and resulting health effects to the public.^a

Receptor(s) ^b	Individual			Probability of fatal cancer	Population			
	Dose (millirem)				Dose (person-rem) ^c			Number of fatal cancers
	Atmospheric releases	Aqueous releases	Total		Atmospheric releases	Aqueous releases	Total	
Offsite maximally exposed individual (current use)								
Annual	1.5 × 10 ⁻⁴	NC ^d	1.5 × 10 ⁻⁴	7.5 × 10 ⁻¹¹	NA ^e	NA	NA	NA
Lifetime ^f	2.6 × 10 ⁻³	NC	2.6 × 10 ⁻³	1.3 × 10 ⁻⁹	NA	NA	NA	NA
Offsite maximally exposed individual (future use)								
Annual ^g	3.8 × 10 ⁻¹	NC	3.8 × 10 ⁻¹	1.9 × 10 ⁻⁷	NA	NA	NA	NA
Lifetime ^f	1.3 × 10 ¹	NC	1.3 × 10 ¹	6.5 × 10 ⁻⁶	NA	NA	NA	NA
Population								
Annual	NA	NA	NA	NA	1.4 × 10 ⁻³	NC	1.4 × 10 ⁻³	6.8 × 10 ⁻⁷
Lifetime ^f	NA	NA	NA	NA	2.4 × 10 ⁻²	NC	2.4 × 10 ⁻²	1.2 × 10 ⁻⁵

a. See Tables C-1 and C-2 in Appendix C.

b. The doses to the public from total SRS operations in 1995 were 0.20 millirem to the offsite maximally exposed individual (0.06 millirem from airborne releases and 0.14 millirem from aqueous releases) and 5.1 person-rem to the regional population (3.5 person-rem from airborne releases and 1.7 person-rem from aqueous releases). Source: Arnett, Mamatey, and Spitzer (1996).

c. For atmospheric releases, the dose is to the population within 50 miles (80 kilometers) of SRS. For aqueous releases, the dose is to the people using the Savannah River from the SRS to the Atlantic Ocean.

d. NC = not calculated; aqueous releases do not change with respect to baseline values.

e. NA = not applicable.

f. Based on 70 years of exposure; doses are corrected for radioactive decay.

g. Assumes future recreational use of L-Lake.